

OPEN SPACE PLAN
FOR THE
CITY OF MIDDLETOWN
CONNECTICUT

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CONSERVATION COMMISSION

MIDDLETOWN, CONNECTICUT

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INTRODUCTION

The realization that open space is an important element of a community's Plan of Development has been increasingly evident in recent years. The various levels of government, having recognized it as significant, have instituted a number of programs which provide the opportunity to assure future populations adequate open space. The crux of these programs is to anticipate and provide for the needs of future generations now, for the resources simply will not be here when the need is acute.

The effect open space has on man's environment is difficult to measure, but the lack of it can be easily comprehended. English planning has long been cognizant of this and has sought to control development in the interest of "amenity". The intent of an urban area or regional open space plan is to create an environment in which open space is a daily experience enriching the lives of the region's population, both now and in the future. It is the preservation of these key parcels of land which give a region its character or uniqueness and if withdrawn from their present natural state would have a perceptible negative effect on the quality of human experience.

Our mental and physical health are related to the provision of "adequate" open space; although this relationship needs further study, there are certain benefits derived which may be vital to the continued welfare of our growing urban population. It has been suggested that high urban densities tend to create sensory overloads thus requiring a release and compensation which outdoor

recreation and open space can provide. On the other hand, it has been firmly established that pollution of our air, drinking water, aquatic life, and water oriented recreation areas is a source of illness which can be controlled through the preservation of open space around these critical areas; limiting the use of septic tanks and construction of waste disposal facilities.¹

The framework within which the plan and analysis will be made is based upon the three major functions of open space (1) conservation of natural resources, (2) shaping urban development or design and (3) provision of adequate active and passive outdoor recreation areas. Preservation of areas which fulfill these broad functions will assure the people of a satisfying human experience and meet both physical and mental health needs.

¹ Ann Louise strong, Open Space for Urban America (Washington: U.S. Government Printing Office, 1965), p.2.

CHAPTER 1 --- CHARACTERISTICS OF POPULATION

Population characteristics have some impact upon demand for open space and recreation. Age is an important factor, for the older age groups participate in less active recreation activities than do the younger groups. Income affects these areas where specialized equipment is needed to participate. Race and sex have little effect, however, people of different occupations have different participation rates. Professional people have the highest rates while farm workers the least. Urban dwellers participate less than suburbanites due simply to ease of access.²

Most of these factors are interrelated with each other, thus making it difficult to judge their effect upon demand. Also, in the future it is expected that many of the present differences will be equalized and tend to disappear.

Increased leisure time is attributed to shorter work weeks, longer paid vacations, mechanization of household chores, and earlier retirement ages. Forecasts by the Outdoor Recreation Review Commission indicates that these trends will continue. The projected average schedule work week for non-agricultural workers shows a constant downward trend.

²Outdoor Recreation Review Commission, Outdoor Recreation For America, (Washington: U. S. Government Printing Office), p. 28.

TABLE 1

Projected Average Work Schedule
for Non-Agricultural Workers
1960-2000³

<u>Year</u>	<u>Hours</u>
1960	39.0
1976	36.0
2000	32.0

Disposable income is expected to rise. By the year 2000 over four times as many people, compared to 1960, will be earning over \$10,000 (based on 1959 dollar).

TABLE 2

Projected Disposable Income
1960-2000⁴

<u>Year</u>	<u>Earning \$10,000 and over</u>
1960	14.0
1976	40.0
2000	60.0

Expected population growth, increased leisure time and higher disposable income will have a multiplying effect on demand. It should be recognized that the ease with which the citizen of the year 2000 can participate will affect the extent to which he will participate. It is therefore important to provide, if possible, outdoor recreation facilities which are easily accessible so as not to dissipate or neutralize projected increased leisure time.

The Outdoor Recreation Review Commission has predicted a 284% increase in demand by the year 2000, yet there will be only a

³O. R. R. C., p. 31

⁴O. R. R. C., p. 30

doubling of the national population.

Activities which exhibit high growth characteristics include boating, swimming, camping, hiking, and playing sports. Of particular consequence will be the severe demand pressures on specific site requirements for swimming and boating on the available supply. Activities with a lower-than-average growth include picnicking, walking for pleasure, nature walks and driving for pleasure. Far below the national average rate of increase will be hunting, fishing, and other like activities.

The responsibility for meeting this demand will be divided between State and Local government. When evaluating the supply it will be necessary to exclude state facilities as a resource for the municipality it's located within; this will insure a realistic appraisal of existing and future needs by eliminating the double counting of resources. In most instances state owned facilities will serve at the very least as a regional resource and in many instances as a state-wide resource.

CHAPTER 2 - COMPONENTS OF OPEN SPACE

A. WHAT IS OPEN SPACE?

To the question "What is open space?"; there are undoubtedly as many different answers as there are people to be asked. The answer a youngster once offered was "the nuthin that separates the sumpthin"; a recreation department director might see it as a supervised playground; and the conservationist might see it as a large natural area undisturbed by man. All too often the average person views it as being a negative concept, the absence of something--urban land uses for instance. He tends to conceive it as land which is not "productive"; that is, it does not produce tax revenue.⁵

This last view is severely limited and has been proven false. Rather than public open space having a negative effect on the community's tax base, quite the opposite is true. For example, generally, single family houses in suburban areas do not pay in tax revenue, the value of services they receive; thus if a parcel were to be developed as a park rather than for single family housing it would result in a lower annual cost to the town. Another positive economic aspect is the rise in property value of land adjacent to public open space, which in turn produces an increase in revenue.⁶ In addition, where public open space attracts large numbers.

⁵Marion Clawson, "A Positive Approach to Open Space Preservation", Journal of the American Institute of Planners, Vol. XXVIII, No. 2. (May, 1962) p. 125.

⁶Strong, p. 53.

of visitors, their expenditures can add significantly to the local economy. Revenues can also be produced from user fees and charges; for from leasing land or concession rights to private organizations.

Open space is, therefore, not the antithesis of development. Open space plans cognizant of this interrelationship will foster and encourage policies which will reinforce it.

A more rigorous and systematic way of viewing open space is from a participation point-of-view. At one end of the spectrum there are areas where facilities are provided for active recreation and at the opposite end there exists areas which are in their natural state. Active outdoor recreation requires a conscious effort to participate in; such activity often requires special facilities. Passive recreation, on the other hand, may not require either but is an integral part of our everyday existence; it surrounds us as a matter of course, sightseeing, hiking and nature study are a few examples.

There exists an interrelationship, a progression or continuity between the poles of the spectrum. For example, a city park may have located within it a swimming pool; wetlands where aquatic wildlife find suitable feeding and breeding habitat; and a nature trail. This example attempts to point out possible compatible relationships between the components of open space on a single site. Certain components, however, are not compatible i. e. hunting within a nature study area.

Open space is not a negative concept; it is not land left over after development has taken place and remains only because it was not of "value" for any other use. Open space is a positive force that can be used to shape and direct urban development to those areas most suited and logical. Land which is suitable to fulfill the functions of open space have environmental requirements far more severe than those demanded by urban development. Land suited for urban development cannot in most instances support the conservation functions of open space; while on the other hand, land suited for conservation can, and all too often does support urban development. For instance, wetlands support a myriad of aquatic species of wildlife which cannot be duplicated elsewhere. In its natural state it is an outdoor laboratory and classroom in which countless life cycles can be studied and examined. Another example in the flood plain of a river. Once it is filled in it usually necessitates the construction of dikes or other similar remedial facilities to compensate for the loss of water storage.

Requirements for outdoor recreation areas are as "severe" as the environmental requirements for conservation but in a different sense. Athletic fields and tennis courts require extensive level areas and natural swimming sites are unique and cannot be replaced or duplicated except at excessive cost. These are but a few of a potentially long list of requirements demanded by conservation and active recreation components of open space.

In summary, open space is a positive concept with three major functions: (1) conservation, (2) design and (3) outdoor recreation. Throughout these functions stretches a continuum of participation. At one end there is a conscious effort to engage actively in some organized sport; at the other extreme participation may be limited to sightseeing or nature observation. On occasion these functions and components can be in conflict or mutually exclusive of each other; they can on as many occasions be compatible and co-existent.

B. OPEN SPACE OBJECTIVES

Having described, in a broad sense, what open space is, it is now necessary to establish open space objectives. Physical features, land use patterns, historical development and attitudes differ from those of the surrounding areas and for this reason will have open space objectives which also differ. These objectives reflect unique conditions and are designed to fulfill existing and potential needs; they will follow the format of the three major functions of open space.

1. CONSERVATION

To maintain a balance in nature which will assure:

- .the preservation of culturally significant landmarks and areas
- .the protection of key wetlands
- .the protection of natural drainage ways
- . the protection of areas of potential water impoundment

- the protection of the quality of water bodies for domestic, industrial and recreation purposes
- the retention of fish and wildlife refuge areas
- the provision of hunting, fishing and nature observation
- the retention of prime agricultural land

2. DESIGN

To assure that a continuous balance of man's sculpture on nature's landscape be the rule, not the exception of daily experience by:

- delimiting and defining existing and potential urban concentrations with permanent green areas, thus restricting urban sprawl.
- encouraging the acquisition or control of areas visually accessible to significant population concentrations in the normal course existence.

3. RECREATION

To encourage the development, acquisition, protection and/or retention of areas to serve existing and potential recreation requirements by:

- coordinating the various levels of government and agencies responsible for the provision of recreation so that unnecessary duplication of facilities will be avoided and thus assure maximum utilization of the limited funds available.
- providing encouragement and incentives to the development of privately owned and economically viable recreation areas.
- giving immediate attention to providing and insuring water oriented recreation opportunities; including investigation of the use of water supply reservoirs and watersheds as multi-purpose areas.
- development of all proposed elementary and secondary school sites as the focus of neighborhood and areawide recreation areas; expanded sites will be needed to support these adjunct facilities.

- .locating all recreation facilities, in so far as possible, in or near the center of the population to be served.
- .comprehensive planning of recreation facilities to achieve maximum utility of their sites.
- .perpetuity of all parks and recreation lands unless full compensation is realized through replacements of sufficient size in appropriate locations.
- .harmonious relationships between park and recreation facilities and over-all community development, and between each facility and its immediate environment.
- .flexibility within park recreation facility developments so as to be adaptable to changes taking place within the community.

CHAPTER 3 - COMPONENTS AND CRITERIA TO OPEN SPACE DEVELOPMENT.

The three broad functions of open space can be broken into sub-areas which reflect appropriate criteria. Conservation and design relate to environmental requirements, while outdoor recreation for the most part relates to the formal aspect of participation. In many cases criteria for outdoor recreation facilities is not attached to unique site characteristics. In other words, many areas can be prepared to meet facility site criteria.

It is important to note that although the following analysis is "compartmentalized" many of the aspects are closely interrelated and some sites can serve multiple functions if they are compatible. These types of sites have inherent economics which often play an important part in selection and establishment of priorities for preservation.

A. CONSERVATION

1. Water-Water is a resource which the very existence of man is dependent upon. As population increases so will the need for water, but at an accelerated rate. It is projected that the per capita consumption will double by the year 2000.

In order to assure existing and future populations of an adequate water supply, every means of protection from misuse should be given surface and ground water supplies. New sources should be investigated and if proven to have potential preserved.

To accomplish this an active and effective pollution control program must be instituted. Proposals from Connecticut's Clean Water Task Force and subsequent legislation has progressed a long

way towards the accomplishment of this goal. Progress to-date has been most encouraging; one of the major potential accomplishments of the program is the eventual use of the Connecticut River as a water supply resource.

2. Wetlands, Flood Plains and Water Courses- Stream beds in their natural state is the most efficient storm drainage system a community can have. The system as evolved over thousands of years and can accommodate most storm intensities with ease. Development has usually resulted in the neglect or enclosure of these streams. Too often installation of inadequate pipe size or encroachment on streams results in up stream flooding during the next major storm or quick spring thaw. As development and urbanization continues the run-off rate will increase and the needs for an adequate storm drainage system will become more apparent and difficult to provide. They can also serve as greenways to connect neighborhoods via pedestrian paths and to separate and provide identity to neighborhoods.

Flood plains serve as a storage area for over bank flooding during periods of excessive precipitation and run-off. These storage areas maintain a natural balance which allows streams to carry off water within their capacity. Disregard for these areas can be measured in terms of property damage caused each year.

There are compatible uses of the flood plain on which flooding has little effect. These uses include parks, swimming areas, hunting areas, agriculture, drive-in theaters, parking lots and

others. All of the forementioned uses would have little or no effect on the functioning of the flood plain during over bank flooding. More intensive uses, such as housing, can be safely placed in the flood plain only after filling. If a significant area is filled, thereby reducing the storage capacity of the flood plain, remedial action will be needed elsewhere to compensate for this loss.

Wetlands serve a multitude of purposes. One of the most important is that of acting as a sponge to absorb and store water during excessive rainfall and then to release it into streams at a moderate rate, thereby maintaining a constant flow. This stabilization of run-off and accommodation of flood waters has an important effect of reducing and preventing soil erosion. The filling in of one or two swamps and possibly a dozen will show little effect over all, but consider the effect if all the wetlands in a water shed were filled. Run-off would be greatly increased and flash flooding would take place.⁷

Wetlands located near population concentrations and schools can provide an educational tool to enrich school curricula.

"Natural areas provide the finest laboratory (almost free of charge) for many of these areas of study, even for such seemingly remote subjects as biology and social studies. Work in natural areas adjacent to or within easy range of a school can be stimulating and exciting, can provide an immediate, local application of principles and problems, and can lead to a citizenry better equipped to cope with myriad problems of resource conservation."⁸

Limited evidence exists that wetlands are a reflection of the ground water level. The need to provide adequate water for future population may necessitate the extensive use of ground water supplies. Protection of wetlands may be an effective way to insure the avail-

ability of this resource.⁹ There have been several potential ground water sources located within the Region, in almost all cases they are located within or adjacent to wetlands.

3. Fish and Wildlife-Fish and wildlife are important inhabitants of our natural environment and provision must be made for their continuation. In order to maintain an ecological balance, extensive tracts of land must remain for such purposes. The Region is blessed with extensive woodlands which are part of the State of Connecticut's Forest system, however, another critical element in this environment are streams and wetlands. These areas support species of animals and plants which are closely associated with wetland habitants. Water Fowl are probably the most common known wetland inhabitants but there are a multitude of others.

Related to the provision of areas for fish and wildlife is the use of these areas for active recreation. Such recreational uses as hunting, fishing, nature observation, hiking, boating, camping and ice skating can also utilize these areas.

⁷"Commonwealth of Massachusetts, "Report of the Department Natural Resources Relative to the Inland Wetlands and Flood Plains of the Commonwealth, With Respect to their Location, Ownership and Value for Purposes of Recreation, Wildlife and Conservation of Natural Resources and Any Other Matters Related Thereto", June 5, 1967 p.5.

⁸Commonwealth of Massachusetts, p.5.

⁹Commonwealth of Massachusetts, p.6.

4. Culturally Significant Landmarks-There exists numerous areas within the Region which are "living" examples of our rich historical heritage. Of primary concern are the grouping of historic buildings or traditional villages. In addition, there are individual structures and landmarks that are of significance. Every effort must be made to encourage their preservation by private individuals or organizations.
5. Soils-Preservation and conservation of soils is related for the most part to the most economical and compatible use of the land. Soils with excessive slope (twenty percent and over) when developed increase the possibility of erosion and soil slippage. Chances are good that development on these areas will have problems in obtaining a potable water supply, disposal of effluent and road maintenance. Communities can be faced with the problem and expense of providing sewage and water systems in an area that requires low density development.

In addition, excessive run-off caused by removal of the ground cover can impair the value of other streams and wetlands in the watershed as the result of sedimentation.

B. DESIGN

At one time there were areas within each community that were thought of as being "unbuildable". With today's technology coupled with pressures created by population, these areas are now able to support urban development. Ridge lines, wetlands, and excessive slopes can no longer be thought of as being "safe". It is necessary for responsible agencies to institute a positive program to preserve such areas.

Certain physical features within the Midstate Region have regional significance; the Connecticut River and abutting property, traprock ridges on the west and the eastern highlands. These areas give identity to the Region and its communities. Preservation of these areas will guide development to more desirable and suitable land and provide easily accessible open space for the Region's population. Just as these major elements provide regional character and guide development so will streams, ridges, forest cover and wetlands for the communities and their neighborhoods.

Most of the areas that serve a conservation function also serve design function and vice versa. The following is a list of some goals which the design function is expected to accomplish.

- .Delimiting and defining existing and potential urban concentrations with permanent green areas, thus restricting urban sprawl.
- .Providing areas visually accessible to significant populations in the normal course of existence.
- .Efficient and economical use of land in keeping with the desired density and capability of soils and slope to support development.
- .Promote attractive harmonious development, avoiding sharp contrasts of scale or of incompatible use.
- .Separation of pedestrians from vehicular traffic.
- .Use of natural or man-made features to achieve desirable groupings and separation of groupings.
- .Retention of farmland. Existing farmland is an important segment between raw undeveloped acreage and urban development. As the need for municipal services increases the burden falls heavier on large land holders-the farmers. When this happens, the market dictates a more profitable return from the land, usually a more intensive use. Therefore, conservation of

farmland is of a critical nature to the communities within the Region who are not able to support services demanded by development and for those who wish to preserve scenic quality of the farming areas.

C. RECREATION

The National Recreation Association has set forth suggested facility standards, services areas, and age group needs. These criteria are generally regarded as the basic authority in the field of recreation and have been modified to meet the particular needs of the Midstate Region.

1. Neighborhood Recreation Facilities

- (a) Play lot-intended for the use of children up to about six years of age. It is essentially a substitute for the individual backyard and should not be planned for low density areas.
- (b) Neighborhood Playground-serves the needs of children from 5-15 years of age. The ideal location is as near as possible to the center of the residential population to be served. A desirable location in most cases is at or adjoining the elementary school.
- Desirable features:

- .playlot or corner for pre-school children
- .apparatus area for older children
- .informal play area
- .paved area for court games
- .shaded area for story telling, crafts and quiet games
- .shelter house or recreation building
- .wading or spray pool
- .landscaped features

- (c) Neighborhood Park-primarily intended to provide an attractive neighborhood setting and a place for quiet, passive recreation for people of all ages. It should be located as near as possible to the center of the neighborhood it is intended to serve. It should serve the same neighborhood as the playground. It may not be needed

in neighborhoods with large lot zoning. Desirable features:

- .open lawn, shrubbery, trees, walks and benches.
- .ornamental pools, fountain or sun dial.
- .some have play apparatus for small children.

(d) Neighborhood Park-Playground-combined playground and park facilities.

(e) Neighborhood Park-School-Playground-school sites serve as the basic neighborhood unit. It will perform the function of the neighborhood park and playground. The one facility can serve a dual function, as part of the educational and recreational programs. Coordination between the responsible department is necessary for maximum utilization of the physical plant. Desirable features:

- .turf fields
- .park
- .senior citizens area
- .playlot
- .neighborhood buildings
- .parking
- .paved area
- .landscaping and walks

2. Community Areas

(a) Playfield-the playfield is primarily for the use of young people and adults, although a section of it is usually developed as a playground for the children of the surrounding neighborhood. it makes possible valuable and popular forms of recreation that have relatively high space requirements when compared with playgrounds. it serves a cluster of neighborhoods centrally located, preferably at or adjoining the secondary school site. One facility can have maximum utilization as does the park-school-playground combination. Desirable features:

- .separate fields for men and women for such games as baseball, football, field hockey, soccer, and softball.
- .courts for tennis, horseshoes, shuffleboard, regue, paddle tennis, and etc.
- .lawn areas for croquet, archery and clock golf
- .outdoor swimming pool
- .fireplaces, tables, benches for family picnics
- .recreation building
- .running track and spaces for field events
- .children's playground
- .center for day camping
- .landscaped park area
- .parking for automobiles
- .lights for evening use

(b) Playfield-Park or Community Park-the playfield and a park are combined in one property serving a community (several Neighborhoods). The area would be developed like the playfield, but a greater percentage of the total space is devoted to natural and or landscaped features.

(c) Community Park-School-serves dual function, recreational and educational. The facility contains the combined playfield, school and park.

3. Townwide Areas

(a) The Large Recreation Park-affords the urban dweller an opportunity to enjoy contact with broad expanses of natural scenery and to provide a pleasant environment in which he can engage in a variety of activities and meet a large cross-section of people, while in the setting of the natural environment. Desirable features:

- .woodland, open lawn, meadow, streams, valley and other water areas
- .Boating, swimming, picnicking, hiking and field sports
- .day camp, zoological garden, bird sanctuary, botanical garden, natural museum and arboretum
- .paths for hiking and horseback riding
- .parking areas, comfort stations, and shelters
- .golf course

(b) The Reservation or Conservation area-are composed of diversified terrain that is preserved primarily in its natural state, and is reserved for passive recreation activities. The area in its natural state will tend to serve several open space functions such as the protection of: natural drainage ways, flood water retention areas, quality of water bodies, fish and wildlife, to delimit and define existing and potential population concentrations. It can also be visually accessible. Desirable features:

- .Picnic facilities
- . facilities for swimming, fishing, boating, and winter sports
- .nature trail or museum, bird sanctuary, and game preserves
- .parking areas
- .shelters

(c) Scenic Highways-are intended to provide the American Family with the opportunity to drive for a period of time through natural landscape, with provisions for picnicking and hiking at selected roadside areas. This program is sponsored by the federal government with routes to be selected by the State Highway Department. As of the present it is still in the preliminary planning stages, but there have been some suggested routes.

4. Special Recreation Areas

(a) Athletic Field or Stadium-intended primarily for highly organized games and sports which attract a large number of spectators. Its location should be on a public transportation route away from residential neighborhoods. Desirable features:

- .quarter-mile running track
- .football or soccer field, baseball diamond and facilities for field events
- .field house
- .toilet facilities
- .area enclosed by a wall or fence

(b) Bathing Beach-has its location determined by the availability of a suitable water area, and is part of a larger facility. Desirable features:

- .bath house
- .parking area
- .game courts
- .picnic and refreshment facilities

(c) Camp Sites-are established in large parks or reservations and are usually regarded as a state or federal function. Desirable features:

- .secluded and wooded areas
- .body of water for swimming and boating
- .shelter building

(d) Golf Course-is usually located near the outer areas of the city limits because of the large acreage needed. Because of the duration of the game, ease of access is less important. Desirable features:

- .club house
- .tennis courts
- .play area
- .winter sports

(e) Swimming Pool-usually part of a larger facility.

Reservations or conservation areas and neighborhood, community and areawide park functions described by the N. R. A. facility criteria can be fulfilled by areas set aside for either design or conservation purposes.

CHAPTER 4 - STANDARDS

Development of standards for open space is difficult at best. Although the recreational function of open space has a somewhat formal group of standards than either the conservation or design function, it is necessary to adjust them to local considerations.

Conservation and design functions are extremely difficult to apply standard to for they are functional in character and must be dependent upon the physical environment. Nature has provided the necessary elements for conservation or design and should be preserved on the basis of function rather than rule-of-thumb standards.

Most standards are given in the form of acres of open space per thousand population. This form is concerned with the acreage of sites, however, more important is the area distribution and the development of the sites in relation to the population distribution. It is important that these sites not only serve existing population but future populations.

The standards indicated in Appendix A are used by other localities or agency as noted and are recommended to be used as a guide for planning and development of Open Space and Recreation Areas in Middletown.

There are a number of major factors which necessitate modification of the standards. They all have a common denominator, that of reducing population densities to the point where facility service areas are extended beyond walking distances in most cases. Some of these factors are:

- .existing land use patterns
- .housing and population densities
- .topography and soils
- .existing zoning regulations
- .large block of state owned property
- .subdivision ordinances

Only a few areas exist where the population served by a facility is within walking distance.

The net result of the low suburban densities has been to equate utilization of a facility with organized activity. An important consideration is the general acceptance by parents for the responsibility of transporting their youngsters to and from recreation facilities and activities.

CHAPTER 5 - APPLICATION OF STANDARDS

Only in the core areas of Middletown can they utilize the general recreation patterns of playgrounds, parks, and playground-parks. For the outlying areas of Middletown the most economical and effective basis for neighborhood recreation is the combined elementary school-playground area.

Combined school and recreation facilities have a variety of advantages, one of the most important is the resulting economy:

.Land-School sites require relatively level topography which is also essential for recreation facilities such as athletic and ball fields.

.Structures-There would be no duplication of indoor and outdoor facilities if designed with both functions in mind, such items would be toilets, showers, gymnasium, turf fields and etc. The cost of the site and physical plant per hour of use will be substantially lower under this arrangement.

.Maintenance-There is the obvious advantage of having only one site to maintain, equip, and is centrally located. Also, school personnel can be utilized if an equitable arrangement can be made between school authorities and those who wish to utilize the site for recreational purposes.

.Location-In general, elementary schools should be located near the center of the population to be served, thus providing an equal opportunity to access to population concentrations for recreation.

The second level of recreation are the community areas. Included within this category are playfields and community parks. Community

parks serve limited function unless it is to be part of, or simultaneous with a conservation or design area. For the same reasons which make the elementary school-playground combination such an acceptable and fitting alternative applies to the combining of play-fields with the high school or junior high school.

The third level of recreation, town-wide areas, includes the large recreational park, reservation and conservation areas. Unless special facilities are provided, the purpose of these areas is to afford people the opportunity to enjoy contact with broad expanses of natural scenery. This function is presently and will continue to be filled in part by the extensive state holdings in the area.

Conservation and design areas are based upon the natural functions they perform. In most instances reservation of these areas will assist communities in retaining their rural character and prevent development of unsuitable land as well as to prevent the need for additional community facilities.

CHAPTER 6 - SUGGESTED GUIDELINES

SUGGESTED GUIDELINES

In summary, standards are difficult to apply for open space. The most susceptible function of open space to the application of standards is that of recreation. To a great extent they must be modified in order to be compatible with local conditions. To reflect local considerations the following proposals are suggested as guidelines.

- A. Neighborhood recreation areas should be related to elementary school sites. Total site should be between 15-20 acres.
- B. Community recreation areas should be related to junior and/or senior high school sites. Site should have 20 acres for a play field and supporting facilities with an additional 15-20 acres for school needs.
- C. Town-wide areas should include special facilities and where possible relate to conservation and/or design functions. Standards indicated in Appendix A may be used as a guide to judge the adequacy of existing facilities.
- D. Multi-function areas are economically preferable and should be encouraged whenever possible. However, economy should not override the necessity to keep certain activities in separate facilities.

The crux of providing adequate recreational facilities lies in having acreage located centrally to the population to be served. The second and almost as important is the provision of facilities at the site. A function of standards is to measure the adequacy of existing facilities and to anticipate the needs of future populations. It is

most important to reserve properly sized and located acreage at the present time while it is available and reasonable in cost.

CHAPTER 7 - TOOLS AVAILABLE FOR ANTICIPATING RECREATIONAL ACREAGE

There are a number of tools available for anticipating the need for recreational acreage and location.

A. Plan of Development-This guide locates areas for development by type and density.

B. Physical Considerations-Suitability of the physical environment to accommodate development is important. Flood plains, extensive swamps, excessive slopes, and ledge are a few of the considerations which could inhibit development on them and direct it to other areas. Just as important are those areas which are particularly suited for development.

C. Ownership Patterns-Extensive state holdings within the Region become a factor. Within these areas no urban development is allowed, thus contributing towards the channeling of development. In the future there is almost no chance that these state holdings will ever come on to the market and thus be susceptible to development. Isolated private property with these areas will probably not be developed because of lack of access. Property owned by water companies are likewise considered undevelopable. Within Middletown several large institutions are located with some having extensive acreage or substantial acreage in strategic areas, however they too

can be considered as removed from development.

D. Population Projections - These help in determining the rate and location of population growth.

With the use of these tools, general locations for future facilities can be determined. It makes possible advanced acquisition with savings in the long run. Development of a site can be postponed until population pressures necessitate. However, when the need is present it is much more difficult to properly locate needed open space.

CHAPTER 8 - NEEDS

Appendix B presents an inventory of existing municipal recreation facilities and Appendix C contains an inventory of the private sector. An expected doubling of Middletown's population by the year 2000, increased leisure time and higher disposable income will have a multiplying effect on demand. In addition, there will be increases in activity participation rates; boating, swimming, camping, hiking and playing sports will continue to exhibit high growth characteristics. Of particular consequence will be severe demand pressures on site requirements for water oriented recreation on the available supply.

An analysis of the adequacy of existing municipal outdoor recreation facilities and future needs begins with a comparison to established general criteria.

Table 3 demonstrates the potential gap that may come about if we

do not keep pace with development. Even now Middletown is falling short of its present day needs.

The Neighborhood Map following Table 3 demonstrates by Neighborhood where Middletown can expect development and population increases and need for more neighborhood areas by year 2000.

TABLE 3

EXISTING AND FUTURE
OPEN SPACE ACREAGE NEEDS 1966, 1980 and 2000
MIDDLETOWN
Total Acreage at 10 acres
Per 1000 population

1966			1980		2000	
Exist. Acreage	Recomm. Acreage	Diff. From Std.±	Recomm. Acreage	Diff. from Std.±	Recomm. Acreage	Diff. from Std.±
267.6	324.7	-57.1	526.0	-258.4	650.0	-382.4
Neighborhood Acreage at 4 acres Per 1000 Population						
119.0	129.9	-10.9	208.0	-78.1	260.0	-130.0
Area-wide Acreage at 6 acres Per 1000 Population						
148.6	194.4	-45.8	315.6	-167.0	390.0	-241.4

CHAPTER 9 - OPEN SPACE PLAN PROPOSALS

A. Long Range Objections

History has demonstrated that cities develop along major transportation corridors. This was true in ancient times with the sea port cities. As railroads formed a network across the land they formed a basis for development of new cities. Now in present times the interstate system of expressway will form the basis for more development. Inasmuch as Interstate 91 connects New Haven and Hartford, there is little doubt that these two cities will grow together. It is certainly recognized that Middletown being in the center of this future development will most likely witness economic growth during this period; and it is even possible that Middletown could some day become the geographic center of this new "megapolis". However, in the process of all this potential growth, the city could also lose all open space which presently surrounds the city and will thereby lose its identity. The most unfortunate fact of it all is that the open space will be gone forever.

Open Space can be used in many different ways, such as: agriculture and forestry use; watershed areas, institutional grounds, including cemeteries, and college campuses; park and recreational areas; dissipation of air pollution use, as well as buffer zones between incompatible land uses; flood plains, stream beds, and other undevelopable areas; airports and many more.

The intent of the Open Space Plan is to identify areas that are maybe available for open space uses, such as those described above, and thereby present the identity of the city and its future development.

Preservation of a large amount of land is a bold proposal, however, every effort should be made to acquire as much of this land as possible. If, in certain areas, purchase of land is unfeasible, legal control measures should be developed in order to prohibit any development which would be detrimental to the permanent protection of the open space. Obviously, as outlying areas continue to become urbanized, the task of implementing the Open Space will be complicated by inflationary land values. It is therefore, particularly important, that this land be preserved as soon as possible.

The following summary and map indicate the recommendations of the Conservation Commission and embody guidelines and recommendations of heretofore stated. The outlines of the proposed open space areas as shown on the map are intended to be flexible and are not intended to be fixed by this report. When these areas are further studied for acquisition a definite boundary will be determined.

OPEN SPACE PLAN
SUMMARY OF MAJOR PROPOSALS

NEIGHBORHOOD PROPOSAL NUMBER	SUGGESTED NAME OF PROPOSAL	PRIMARY USE			ACREAGE
		CONSERVATION	DESIGN	RECREATION	
A-1	Mattabesset - Part I	X			-0-
A-2	Old East		X		-0-
A-3	Westswamp Brook	X			-0-
A-4	Proposed Elm School			X	-0-
B-1	Westfield Falls		X		-0-
B-2	Fall Road		X		-0-
B-3	Higby Mountain	X			-0-
B-4	Old South Hill		X		
B-5	Westfield			X	-0-
C-1	East Street Ridge - Part I		X		-0-
C-2	East Street Ridge - Part II		X		-0-
C-3	Saddle Hill		X		-0-
C-4	High School			X	-0-
C-5	Coginchaug - Part I	X			-0-
D-1	Coginchaug - Part II	X			-0-
E-1	West Long Hill		X		-0-
E-2	Pameacha Pond		X		-0-
E-3	Lockshop Pond		X	X	
F-1	Long Hill Brook Swamp	X			-0-
F-2	Coleman Ridge		X		-0-
F-3	Maple Shade (Reynold's)	X			-0-
F-4	Dooley Pond			X	
F-5	Round Hill		X		-0-

NEIGHBORHOOD PROPOSAL NUMBER	SUGGESTED NAME OF PROPOSAL	PRIMARY USE			ACREAGE
		CONSERVATION	DESIGN	RECREATION	
F-6	Kelsey Brook	X			-0-
F-7	Crystal Lake - Part II		X		-0-
F-8	Proposed Elem School			X	-0-
G-1	Crystal Lake - Part I			X	
G-2	Chestnut Mountain	X			
G-3	Proposed Elementary School			X	
H-1	Zoan Pond			X	
H-2	Wilson High School Ext.			X	
H-3	Eckersley Playground			X	
I-1	Biefield School Ext.			X	
I-2	Farm Hill School Ext.			X	
I-3	Sumner Brook Pond	X			
J-1	Hubbard School Ext.			X	
J-2	Neighborhood Park			X	
K-1	Palmer Field Ext.			X	
K-2	Butternut Hollow Park			X	
K-3	Neighborhood Park			X	
K-4	Stillman School Ext.			X	
K-5	Summer Brook Park			X	
K-6	River Front Park			X	
L-1	MacDonough School Ext.			X	
L-2	North End Park			X	
L-3	Miller Street Park			X	
L-4	Mattabesett - Part II	X			
M-1	Bear Hill	X			

NEIGHBORHOOD PROPOSAL NUMBER	SUGGESTED NAME OF PROPOSAL	PRIMARY USE			ACREAGE
		CONSERVATION	DESIGN	RECREATION	
M-2	Bible Rock	X			
M-3	Asylum Res. No. 1		X		
M-4	Asylum Res. No. 2		X		
M-5	State Forest		X		
M-6	Hubbard Brook		X		
M-7	Proposed Elem School			X	
N-1	Highland Pond			X	
M-2	Lamentation Mountain		X		
N-3	Snow Hill - Part I		X		
N-4	Snow Hill - Part II		X		
O-1	Mattabesset - Part II	X			

CHAPTER 10 -- METHODS OF IMPLEMENTATION

To implement an open space plan the responsible agencies must be knowledgeable of existing methods of preservation, both in the public and private sphere. In addition to being willing to use any one or combination of existing methods they will likely be called upon to be innovative, and perhaps develop and effectuate new methods. With the stakes so high, no avenue must be left unexplored.

There are four general areas that open space preservation falls into (1) incentives or the tax approach, (2) acquisition, (3) zoning and (4) planning.

Implementation is dependent upon a coordinated effort by all levels of government. It involves the establishment of priorities and responsibilities for both local and State agencies and a continuing liaison between them. It also is dependent on the use tools other than fee or less than fee acquisition. They include: flood plain zoning, channel encroachment lines, large lot zoning, cluster development, density zoning, open space tax assessment procedures and subdivision dedication. Use of these tools in appropriate circumstances can contribute substantially to the implementation of the plan.

The short range program indicates the Federal Government will be asked to participate at a 50 percent level of funding with the State and Town picking up the remainder of the acqui-

sition costs. It must be recognized, however, that this is only one of a number of alternative avenues for financing open space acquisitions. It is quite conceivable that there will be opportunities presented that will require immediate action by the Town, in which case only local funds might be used for the acquisition without application for either federal or state participation. Between these previous two alternatives lies the possibility that a project for which both State and Federal participation were requested could be accepted for funding by the State Department of Agriculture and Natural Resources and rejected at the Federal level. In this case the Town could proceed with the acquisition and receive 25 percent participation by the State. A more likely alternative would be for the Federal agencies to approve of a purchase but be unable to fund it. In this particular case the State will participate up to 40 percent of the acquisition cost.

Should any of the alternative methods of funding be used, other than that indicated in the short-range program, it would probably necessitate a reevaluation of the time table for initiation of the projects. It should in no way substantially change the priorities or the plan, for regardless of financial arrangements the proposals are responsive to Portland's needs and reflect the objectives of the plan.

APPENDIX

APPENDIX A

RECOMMENDED STANDARDS FOR MUNICIPAL OPEN-SPACE AND RECREATION AREAS

Type of Facility	Locality or Agency	Recommended Size	Ratio to Population (Acres per 1,000)	Service Radius	Other Criteria
TOTAL	Conn. Development Com.		10		
	Freemont, California		15		
MUNICIPAL	West Hartford, Conn.		10		
	Denver, Colorado		10.5		
	National Recreation Asso.				
ACREAGE					
NEIGHBORHOOD	Conn. Development Com.		3.9		
OPEN-SPACE & RECREATION FACILITIES	Dist. of Columbia		3.75		
	Montgomery County, Ohio		5.0		
	Radford, Virginia		4.5		
PLAY-LOT	Minneapolis	1/2 acre or less		One Block to 1/4 Mile	
	Dallas	1 acre or less			
	Seattle	3 acres or less			
	Conn. Dev. Com.	1/8 acre	0.3		
	National Recreation Assoc.	3-6 Acres	1.25	1/4 Mile	3.25 Acre for 2,000 Pop.
NEIGHBORHOOD					6 Acres for 5,000 Pop.
PLAY-GROUNDS	Minneapolis		1.43		
	Dallas		1.		
	Boston	3 Acres or Less	.68		
	Philadelphia	3-8 Acres	.5	1/4-1/2 Mile	Size and Service Radius varies with neighborhood density
	ASPO	3-5 Acres			
	Conn. Dev. Comm.	3-5 Acres	1.3		

Type of Facility	Locality or Agency	Recommended Size	Ratio to Population (Acres per 1,000)	Service Radius	Other Criteria
NEIGHBORHOOD PARKS	Washington, D. C.	10-20 Acres			
	Seattle		1.25	1/2 Mile	
	St. Louis		2.		
	City Manager Assoc.	7 Acres			
	Amer. P. H. Assoc.	7-2 Acres			
	Conn. Development Com.	7 Acres	1.0		Size varies with neighborhood density
PLAY FIELD	Detroit	30-60 Acres			
	Nat. Recreation Assoc.		1.25	1/2-1 Mile	
	Dallas		1-2	1 Mile	1 Playfield for each 4 or 5 neighborhoods
	Philadelphia		1 Field per 60-75 thousand		1 Playfield for each 5 or 6 Playgrounds
	Conn. Development Com.	12-20 Acres	1.3		
NEIGHBORHOOD SCHOOL-PARK	Athletic Institute	15 Acres	1.88	1/4-1/2 Mi.	
	Columbus, Ohio	20 Acres			
	Baltimore County	20 Acres	2.88	1/2 Mile	
	Nat. Council on Schoolhouse Const.	5 Acres+			Provides for Playground Facilities only
PLAY-GROUND	Chicago		2.		
	Fremont, California		5.		
	Delaware County, Pa.		1.75		
	Berkeley	7 Acres	1.49	1/4 Mile	
	Oakland, California	9 Acres	1.5		
AREA-WIDE OPEN-SPACE AND RECREATION FACILITIES	Conn. Development Com.		6.0		
	Nibtginit County, Ohio		5.0		
	Radford, Virginia		5.5		

Type of Facility	Locality or Agency	Recommended Size	Ratio to Population (Acres per 1000)	Service Radius	Other Criteria
LARGE RECREATIONAL PARK	Philadelphia	300-2500 Acres			
	Detroit	60-250 Acres			
	Nat. Recreation Asso.		2.5		1 Park for ea. 40,000 Pop.
	Fremont, California		8.0		
	Seattle		2.5	2-3 Mi. or 30 Min. travel	
	Dallas		5.0		
	Conn. Development Com.	50-150 Acres	3.0		
SPECIAL USE AREAS	Conn. Development Com.		3.0		
GOLF COURSE	National Golf Foundation	9 Holes-50 Acres 18 Holes-110 Acres			Gently rolling land: 9-Holes-60 Acres: 18 Holes - 120 Acres Rugged land: 9 Holes-70 Acres; 18 Holes 140-180 Acres. Additional course for ea. additional 30 M population
	National Recreation Association	1 Hole/3,000 pop.			
	California Committee	1 Course/20,000			
	Tri-State, N. Y. Metropolitan Region		2.0		
	Conn. Development Com.		3.0		

Type of Facility	Locality or Agency	Recommended Size	Ratio to Population (Acres per 1,000)	Service Radius	Other Criteria
ATHLETIC FIELD OR STADIUM	Kansas City, Missouri	13 Acres + Parking			Stadium Capacity 20,000 40,000 persons total site including parking for 5,000-7,000 cars=42-62 Acres.
	Tacoma	20 Acres + Parking			24 Acres Parking/10,000 seats recommended
	California Committee on Planning for Rec. Park Areas	50 Acres + Parking 1 Site per 100,000 pop.			Sports Center Site: Stadium Swimming Pool, Athletic Field & Courts: Nine Acres of site, 1300 parking spaces
	Westchester County	10 Acres-City Beach 50 Acres-County Beach		150 ft./2 Users	
BATHING BEACH	Baltimore County			100 ft./2 Users + Parking and Concession Areas	Enough beach space be provided for 7% of the population served. Proposed min. space requirement for beach & related area =400 ft./2 person
	Tri-State, N.Y. Metropolitan Region		1.25		Includes 1-1/4 Acre for boating.
RESER- VATION	National Recreation				Cities reports proposing several hundred to several thousand acres. Few reports propose a maximum.
	Tri-State, N. Y. Metropolitan Region	5 Acres/1000			

APPENDIX B

INVENTORY OF MUNICIPAL RECREATION FACILITIES

<u>Facility</u>	<u>Acreage</u>	<u>% Developed</u>	<u>Major Features &/ or Activity</u>	<u>Comments</u>
<u>AREA WIDE</u>				
1 Veterans Memorial Park	39	95	.swimming pool .basketball courts .ice skating .picnicking .archery range .horseshoes .zoo .tennis courts .bocci courts .snow sliding .hiking	.the major town facility
2 Palmer Field	9	90	.baseball field .softball field .soccer field	.excellent lighting for night games .spectator facilities .adjacent to Vet. Mem- orial Park
3 Hubbard Park	5	100	.baseball field .softball field .spectator facilities	
4 River Front Park	5.5	20	.walking areas .sitting areas .boat launching	.park drastically un- derutilized has great potential
5 Pikes Ravine	19	100	.nature study .hiking .ice skating	.area set aside for passive recreation
6 Pameacha Pond	23.5	0		.proposed development .city owns only the pond, no shore line
7 Crystal Lake	33	50	.proposed golf course .swimming .picnic facilities .field sports	.still being devel- oped .promises to be a major asset to the city

<u>Facility</u>	<u>Acreage</u>	<u>% Developed</u>	<u>Major Features & or Activity</u>	<u>Comments</u>
8 Pat Kidney Field	14.6	100	.softball fields .baseball fields .soccer .football .track .tennis	.facility abuts Jr. & Sr. high school- used extensively by them
9 Highland Pond	100	0		.proposed to be developed as city wide park
<u>NEIGHBORHOOD</u>				
10	1.3	100	.sitting .viewing	
11 Washington Green	3.3	100	.sitting .viewing	
12 Butternut Hollow	10.9	0		.proposed improve- ments
13	3.0	0		.presently enjoys the distinction of being the bulky refuse dump
14 Otis Playground	2	100	.basketball .play apparatus .turf field	
15 North End Memorial Playground	117	100	.softball field .basketball courts .play apparatus .horseshoe courts	.abuts McDonough School-area utilized by school
16 City School Field	3	0	.football field .running track .basketball .play apparatus .softball .soccer	.abuts Stillman School-utilized by school

INVENTO PRIVATE RECREAT FACILIT

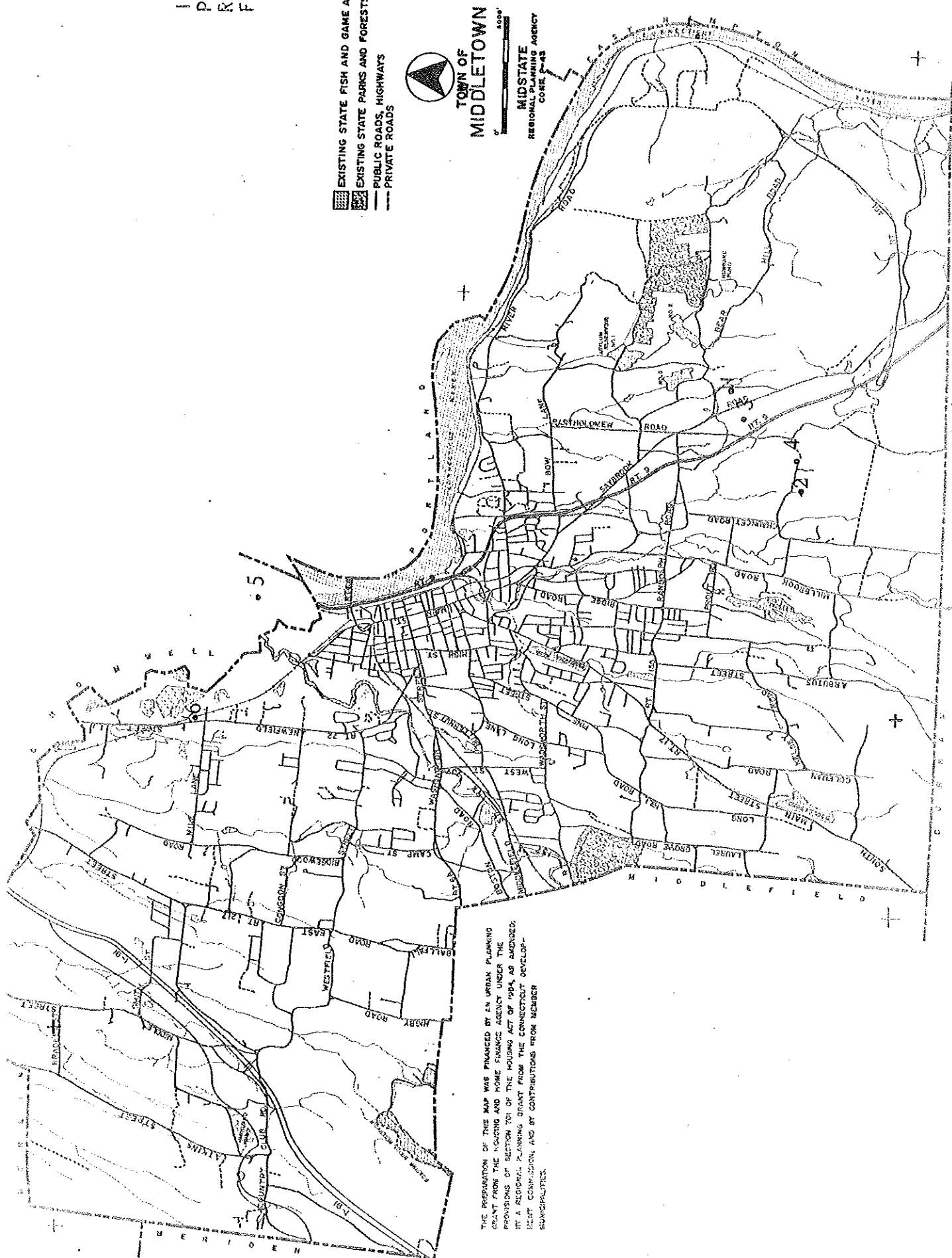
- EXISTING STATE FISH AND GAME AREAS
- EXISTING STATE PARKS AND FORESTS
- PUBLIC ROADS, HIGHWAYS
- PRIVATE ROADS



TOWN OF
MIDDLETOWN

0 1000' 2000'

MIDSTATE
REGIONAL PLANNING AGENCY
CORR. 5-42



THE PREPARATION OF THIS MAP WAS FINANCED BY AN URBAN PLANNING
GRANT FROM THE HOUSING AND HOME FINANCE AGENCY UNDER THE
PROVISIONS OF SECTION 701 OF THE HOUSING ACT OF 1934, AS AMENDED,
BY A REGIONAL PLANNING GRANT FROM THE CONNECTICUT DEVELOP-
MENT COMMISSION, AND BY CONTRIBUTIONS FROM MEMBER
MUNICIPALITIES.

APPENDIX C

INVENTORY OF PRIVATE RECREATION FACILITIES

<u>Facility</u>	<u>Fees</u> <u>Yes</u>	<u>No</u>	<u>Non</u> <u>Comm.</u>	<u>Comm.</u>	<u>Acreage</u>	<u>Major Features &/</u> <u>or Facilities</u>	<u>Comments</u>
1 Polish Falcon's Camp	x		x		6	.swimming .turf field .shelter .tennis .lawn games	
2 Middletown Sportsman's Club	x		x		2	.club house .trap range .hunting	
3 Her-Del Stables	x			x	30	.stables .horseback riding .horse ring	
4 L.B. Riding Club	x		x		5	.horse ring .picnic area .club house .horseback riding	
5 Westfield Fish & Game Club	x		x		2000 ⁺	.hunting .turkey shoot .field trials	.have agreement with Farmers & Board of Fish- eries & Game
6 Camp Poplar	x			x	18	.swimming .arts & crafts .archery .field games	.for elementary school children .day camp
7 Polish Club Recreation Area	x		x		13.0	.picnicking .club house .field sports	